IN THE CLAIMS:

Please amend the claims as set forth below:

1. (Currently Amended) A distributed simulation system comprising a plurality of nodes, wherein each node of the plurality of nodes is configured to simulate a different portion of a system under test using a simulator program configured to perform a simulation as a series of timesteps, and wherein each timestep includes at least a first phase and a second phase, and wherein the plurality of nodes are configured to enter each phase concurrently and exit each phase concurrently, and wherein the plurality of nodes are configured to exit each phase in response to a command indicating that the phase is complete, and wherein each node of the plurality of nodes is configured not to cause the simulator program to evaluate a model of the different portion of the system under test during the first phase even if one or more commands are received by that node during the first phase, and wherein each node of the plurality of nodes is configured to cause the simulator program to evaluate the model during the second phase in response to receiving a command during the second phase, the command including one or more signal values for signals of the model.

2. (Original) The distributed simulation system as recited in claim 1 wherein each node of the plurality of nodes is configured not to cause the simulator program to evaluate the model during the second phase if the signal values in the command received by that node are the same as the current values of the signals.

3. (Original) The distributed simulation system as recited in claim 1 wherein each node of the plurality of nodes is configured, if one or more output signals of the model change in response to evaluating the model, to transmit a command including at least the signal values of the output signals that change.

4. (Original) The distributed simulation system as recited in claim 1 wherein each node of the plurality of nodes is configured to cause the simulator program to evaluate the model two or more times during the second phase in response to two or more commands

including signal values.

5. (Original) The distributed simulation system as recited in claim 1 further comprising a hub coupled to the plurality of nodes, wherein the hub is configured to receive at least one command from each node during the first phase prior to transmitting commands to the plurality of nodes during the first phase.

6. (Original) The distributed simulation system as recited in claim 5 wherein each node of the plurality of nodes is configured to transmit a no-operation command to the hub if that node has no other command to transmit.

7. (Original) The distributed simulation system as recited in claim 5 wherein the hub is configured to transmit at least one command to each node of the plurality of nodes.

8. (Original) The distributed simulation system as recited in claim 7 wherein a first command transmitted by the hub to a first node of the plurality of nodes corresponds to a second command received from one of the plurality of nodes if the second command is routed to the first node, and wherein the first command is a no-operation command otherwise.

9. (Original) The distributed simulation system as recited in claim 1 further comprising a hub coupled to the plurality of nodes, wherein the hub is configured to receive at least one command from each node during the second phase prior to transmitting commands to the plurality of nodes during the second phase.

10. (Original) The distributed simulation system as recited in claim 9 wherein each node of the plurality of nodes is configured to transmit a no-operation command to the hub if that node has no other command to transmit.

11. (Original) The distributed simulation system as recited in claim 9 wherein the hub is configured to transmit at least one command to each node of the plurality of nodes.

12. (Original) The distributed simulation system as recited in claim 11 wherein a first command transmitted by the hub to a first node of the plurality of nodes corresponds to a second command received from one of the plurality of nodes if the second command is routed to the first node, and wherein the first command is a no-operation command otherwise.

13. (Original) The distributed simulation system as recited in claim 1 further comprising a hub coupled to the plurality of nodes and configured to signal an end of each of the first phase and the second phase.

14. (Original) The distributed simulation system as recited in claim 13 wherein the hub is configured to receive at least one command from each node prior to transmitting commands to the plurality of nodes, and wherein the hub is configured to signal an end to one of the first phase or the second phase responsive to receiving a no-operation command from each of the plurality of nodes.

15. (Currently Amended) A computer readable medium storing instructions which, when executed on a computer, process a first one or more commands received during a first phase of a timestep without causing a simulator program to evaluate a model, and cause the simulator program to evaluate the model during a second phase of the timestep in response to receiving a second command including one or more signal values for signals of the model, wherein the second command is received during the second phase of the timestep, and wherein the instructions, when executed, exit one of the first phase and second phase in response to receiving a third command indicating that the phase is complete.

16. (Previously Presented) The computer readable medium as recited in claim 15 wherein the instructions, when executed, do not cause the simulator program to evaluate the model during the second phase if the signal values in the second command are the same as the current values of the signals in the model.

17. (Previously Presented) The computer readable medium as recited in claim 15 wherein the instructions, when executed, if one or more output signals of the model change in response to evaluating the model, transmit a command including at least the signal values of the output signals that change.

18. (Previously Presented) The computer readable medium as recited in claim 17 wherein the instructions, when executed, if no output signals change value during the second phase, transmit a no-operation command.

19. (Previously Presented) The computer readable medium as recited in claim 15 wherein the instructions, when executed, cause the simulator program to evaluate the model two or more times during the second phase in response to two or more commands including signal values and optional signal strengths.

20. (Previously Presented) The computer readable medium as recited in claim 15 wherein, in response to a third command indicating an end of the first or second phase, is configured to return to the simulator program.

21. (Currently Amended) A computer readable medium storing instructions which, when executed on a computer, ~~are configured to~~ signal an end of either a first phase or a second phase of a timestep in a distributed simulation system by transmitting a predefined command indicating an end of the first phase or the second phase to each of a plurality of nodes in the distributed simulation system, and wherein the instructions, when executed on the computer, ~~are configured to~~ signal the end of either the first phase or the second phase responsive to receiving a no-operation packet from each of the plurality of nodes subsequent to transmitting a command other than a no-operation packet to at least one of the plurality of nodes.

22. (Cancelled)

23. (Currently Amended) The computer readable medium as recited in claim 21 wherein the instructions, when executed on the computer, route commands from one of the plurality of nodes to others of the plurality of nodes.

24. (Currently Amended) A method comprising:

receiving a first one or more commands in a node of a distributed simulation system during a first phase of a timestep;

processing the first one or more commands without causing a simulator program to evaluate a model;

receiving a second command during a second phase of the timestep; ~~and~~

processing the second command including causing the simulator program to evaluate the model if the second command includes one or more signal values for signals of the model;

receiving a third command indicating that one of the first phase and the second phase is complete; and

exiting the phase in response to the third command.

25. (Original) The method as recited in claim 24 wherein processing the second command does not include causing the simulator program to evaluate the model if the signal values in the second command are the same as the current values of the signals in the model.

26. (Original) The method as recited in claim 24 further comprising, if the evaluation of the model during the second phase results in one or more output signals of the model changing, transmitting a command including at least the signal values of the output

signals that change.

27. (Original) The method as recited in claim 26 further comprising, if no output signals change value during the second phase, transmitting a no-operation command.

28. (Original) The method as recited in claim 24 further comprising causing the simulator program to evaluate the model two or more times during the second phase in response to two or more commands including signal values.

29. (Original) The method as recited in claim 24 further comprising, in response to a command indicating an end of the first or second phase, returning to the simulator program.

30. (Previously Presented) A method comprising:

signaling an end of a first phase of a timestep in a distributed simulation system by a hub of the distributed simulation system, the signaling including transmitting a predefined command to each of a plurality of nodes in the distributed simulation system, wherein signaling the end of the first phase is responsive to receiving a no-operation packet from each of the plurality of nodes subsequent to transmitting a command other than a no-operation packet to at least one of the plurality of nodes; and

signaling an end of a second phase of a timestep in a distributed simulation system by the hub, the signaling including transmitting a predefined command to each of the plurality of nodes in the distributed simulation system.

31. (Cancelled)

32. (Original) The method as recited in claim 30 wherein signaling the end of the second

phase is responsive to receiving a no-operation packet from each of the plurality of nodes subsequent to transmitting a command other than a no-operation packet to at least one of the plurality of nodes.

33. (Original) A distributed simulation system comprising a plurality of nodes wherein each node of the plurality of nodes is configured to simulate a different portion of a system under test using a simulator program configured to perform a simulation as a series of timesteps, and wherein the plurality of nodes are configured to communicate using commands, and a first node of the plurality of nodes is configured to cause the simulator program to evaluate the model in response to receiving a first command including one or more signal values for signals of the model during a first timestep, and wherein the first node is configured to cause the simulator program to re-evaluate the model in response to receiving a second command including one or more signal values for signals of the model during the first timestep.